Linear Assets Modernization Project
Environmental Analysis

Overview

The UC Lawrence Berkeley National Laboratory (UC LBNL, Berkeley Lab, or the University) proposes to upgrade and modernize its campus-wide utility systems. This would replace outdated mechanical systems and provide more efficient and redundant utility infrastructure to meet current and projected future UC LBNL needs.

CEQA and Planning Background

The 2006 Long-Range Development Plan (LRDP) Environmental Impact Report (EIR), as supplemented, is the primary CEQA documentation for the proposed LAMP Project pursuant to CEQA Guidelines §15168.

The 2006 LRDP, approved by the University in July 2007, is the current governing land use plan and policy document that guides development at Berkeley Lab through approximately 2025. The *Lawrence Berkeley National Laboratory Long-Range Development Plan EIR* (2006 LRDP EIR; SCH#2000102046) evaluated the environmental impacts of development and operation of LBNL facilities at Berkeley Lab under the 2006 LRDP through the (approximate) year 2025.

The *Seismic Life Safety, Modernization and Replacement of General Purpose Buildings, Phase 2 Project (Including Supplementation of the LBNL 2006 LRDP EIR with respect to Traffic Impacts at One Intersection) EIR* (Seismic Phase 2 EIR; SCH#2008122030) was certified by the UC Regents in June 2010. The Seismic Phase 2 EIR included supplementation of the 2006 LRDP EIR with respect to traffic impacts at one intersection in the City of Berkeley.

The *Building 59 Upgrade & Installation* and *Operation of NERSC-9 Focused Environmental Impact Report (Including Supplementation of the LBNL 2006 LRDP EIR with respect to Greenhouse Gas Emissions)* (NERSC-9 EIR; SCH#2016062007), certified in 2017, included supplementation of the LBNL 2006 LRDP EIR to address LRDP greenhouse gas emissions relative to regulatory thresholds of significance.

The 2006 LRDP EIR, when further referenced in this Environmental Analysis, includes both the 2010 Seismic Phase 2 EIR and 2017 NERSC-9 EIR Supplements. Together, these documents are referenced as the "2006 LRDP Final EIR."

Project Description

The purpose of the proposed Linear Assets Modernization Project (the proposed Project) is to address deficient, high-priority utility systems and support the long-term safety, reliability, and capability of UC LBNL infrastructure so that the Berkeley Lab may continue to effectively carry out its research mission. Upgraded utilities would be sized to meet current and anticipated future needs.

The proposed project utility work would take place within or contiguous to developed areas of the UC LBNL campus; most such project areas are roadbeds or are otherwise paved. (See Figure 2) These activity areas, along with any nearby campus accessory areas used for project staging or lay-down, would comprise the project site. Approximately 10,000 linear feet of subsurface trenches, duct banks, and utility corridors would be addressed. Under the project, existing utility trenches would be uncovered and exposed, utility lines would be swapped out, and the trenches would be recovered and resurfaced. Utility lines and appurtenances to be replaced would either be abandoned in place or removed and recycled or disposed of off-site. Decisions on exact sizing, alignments, and disposition of new utility lines would be made as work progressed throughout the lifetime of the project. In a few cases, new duct banks would likely be constructed outside of existing utility trenches (expected to represent less than 3-percent of the overall project). Such relatively short segments nevertheless would be within developed or previously disturbed areas. Most or all LAMP excavation activity would entail conventional trenching; in isolated cases directional drilling might be employed. A small number of trees might be trimmed or removed with new trenching; in such cases, trenches would be aligned to avoid native tree species (as opposed to invasive eucalyptus and pine trees). Work would be conducted incrementally; only relatively short segments of trenches would be opened up at any one time.

Project work is expected to begin in early 2023 and end in mid-2029. To minimize disruption to LBNL operations during project construction, the proposed project would be executed in a carefully planned sequence of two "Sub-Projects." This would allow for planned outages and temporary bypasses to be in place while particular sectors of the LBNL site are undergoing utility replacement. Sub-Project 1 is expected to take place from early 2023 to mid-2026; Sub-Project 2 from mid-2026 to mid-2029.

During peak construction periods, the proposed Project is expected to employ on average about 30 daily construction workers on site. Construction work is expected to take place during normal business hours and days; exceptions might be made (e.g., weekend work) when necessary to accommodate safety concerns and to minimize disruption to on-going LBNL operations.

Construction truck trips would be generated as new utility equipment is imported to the site and as excess soils and obsolete utility equipment are exported for recycling or disposal. Soil disposal would require approximately 300 truck trips, which equates to

approximately 4 truck trips per month on average over the project duration. Importation of new equipment and off-hauling of retired equipment for recycling or disposal would account for an estimated additional 4 trucks per month, on average. The frequency of truck trips would be relatively modest given the incremental nature of the work and the lengthy duration of the proposed schedule. Furthermore, truck trips would be managed under the Lab's Construction Truck Trip Management Program, which ensures that cumulative construction trucks at LBNL stay below a significance threshold calculated by an independent traffic engineer. Other LBNL projects expected to take place during the LAMP timeframe, including the Grizzly Peak Substation Expansion and BioEPIC construction, would be included in the Construction Truck Trip Management Program and would not otherwise be expected to generate cumulatively considerable impacts.

Equipment and soil to be removed would be inspected and characterized for the presence of hazardous materials, including asbestos, lead-based paint, volatile organics, and PCBs. Any contaminants would be abated and disposed of under the oversight of Berkeley Lab's EH&S specialists and in accordance with all applicable regulations and standards. Transite pipe containing asbestos would likely be retired in place (which is environmentally superior to transporting and disposing offsite) where utility corridor space is sufficient. Any contaminated soils or materials for off-haul would be consolidated and organized for efficient and safe transport; they would then be hauled to an appropriate hazardous material landfill or facility. Other soils and materials would be transported to recycling facilities or non-hazardous disposal facilities.

All applicable 2006 Long-Range Development Plan (LRDP) Environmental Impact Report (EIR) mitigation measures, UC LBNL Standard Project Features (SPFs), and other best management practices to minimize environmental impacts would be employed by the Project. Dust and emission control would be implemented and all necessary permits would be secured from the Bay Area Air Quality Management District. Any trees selected for trimming or incidental removal would be inspected by qualified wildlife biologists for nesting birds and brooding bats pursuant to LBNL mitigation commitments and SPFs, and appropriate avoidance measures would be taken. Alameda whipsnake avoidance measures would be enacted. A Stormwater Pollution Prevention Plan (SWPPP) would be implemented for LAMP; this would either be through a minor modification to LBNL's Sitewide Industrial SWPPP or through a new, dedicated General Construction Permit SWPPP. Project construction would take place within or adjacent to developed or previously disturbed areas. No buildings would be removed or modified.

Consistency with 2006 LRDP and LRDP Final EIR

The proposed project would conform to the UC LBNL's 2006 Long-Range Development Plan (LRDP). Work would largely take place within existing utility corridor beds and would, per LRDP Land Use Strategies:

- Focus "future development primarily within the already developed areas of the (campus)"
- "Configure and consolidate uses to improve operational efficiencies"
- "Minimize the visibility of development from neighboring areas."

Pursuant to LRDP Utilities and Infrastructure Strategies, the Project would:

- "Maintain a safe and reliable utility infrastructure capable of sustaining the Laboratory's scientific endeavors"
- "Consolidate utility distribution into centralized utility corridors that generally coincide with major roadways"
- "Ensure that utility infrastructure improvements accommodate future facility expansion and alterations in the most cost effective means possible"
- Design utility improvements "to embody sustainable practices."

The 2006 LRDP EIR project description posits and analyzes for environmental impacts from the activities that comprise the LAMP Project. As presented in the 2006 LRDP EIR project description, "the 2006 LRDP foresees improvements to Berkeley Lab's infrastructure to increase reliability, flexibility, and efficiency, and to increase redundancy in the provision of critical services and utilities. Included among the LRDP's Development Principles is an intention to locate upgraded and new service lines in corridors." Environmental consequences associated with such utility replacement activities are analyzed throughout the document, in particular in 2006 LRDP EIR Chapter IV.

The 2006 LRDP EIR further identifies its intended use as a programmatic document to facilitate CEQA review for later project approvals pursuant to the requirements and provisions of CEQA §15168 (as described in 2006 LRDP EIR, including in sections I.F.4, III.E, and III.F).

Environmental Discussion

Under the 2006 LRDP EIR Mitigation Monitoring and Reporting Program, all 2006 LRDP EIR-required mitigation is incorporated and monitored as part of every subsequent project at Berkeley Lab. While specific LRDP EIR mitigation measures are identified in the following environmental discussion, these are incorporated into the proposed Project description by definition and are not applied, after-the-fact, as discretionary mitigation.

The following environmental analysis and discussion demonstrates that the proposed Project would neither trigger any potentially significant impacts nor require the application of any mitigation beyond 2006 LRDP Final EIR, measures already incorporated into the project. The analysis provides substantial evidence showing that the proposed Project is within the scope of the 2006 LRDP Final EIR, pursuant to CEQA Guidelines §15168; it further examines the proposed Project's effects, mitigation, and circumstances to demonstrate that a Subsequent EIR is not required pursuant to CEQA Guidelines §15162.

Aesthetics: No long-term aesthetic impacts would result from the proposed Project. The proposed Project work would affect only subsurface site features. Temporary excavation would generally not be visible to public viewpoints. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to aesthetics, and a Subsequent EIR is not required.

Agricultural / Forestry Resources: No agricultural and forestry resources are present on the project site; none of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to agricultural and forestry resources, and a Subsequent EIR is not required.

Air Quality: The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures AQ-1a and AQ-1b. Short-term criteria pollutant air emissions would be generated by excavation activities and the use of trucks and heavy equipment; these would not be cumulatively considerable nor would they expose sensitive receptors to substantial pollutant concentrations. Project emissions would be further managed by adherence to UC LBNL construction best practices and the basic construction control measures recommended by Bay Area Air Quality Management District (BAAQMD) guidelines. If necessary, UC LBNL would apply for and comply with an asbestos abatement permit from the BAAQMD. The Project would not involve operational emissions of either criteria pollutants or toxic air contaminants (TACs).

Project TACs emissions would result mainly from temporary diesel particulate matter (DPM) emitted from construction equipment. Project construction emissions would be short term in any given location and would not occur within 1,000 feet of sensitive receptors (e.g., schools, hospitals, and convalescent facilities). The BAAQMD construction screening guidance provides that health risks at distances greater than 1,000 feet can conservatively be assumed to be less than significant. (BAAQMD *CEQA Air Quality Guidelines*, 2017). None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project.

Biological Resources: The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures BIO-3, BIO-4, and BIO-5. The project site and surrounding area are largely developed with fill and asphalt. The relatively small amount of project area that is not paved is nonetheless previously disturbed and/or adjacent to heavily developed areas. To minimize any risk to nesting birds and/or roosting bats during breeding seasons (roughly from February to August), 2006 LRDP EIR Mitigation measures BIO-3 and BIO-4 require that: 1) such potentially disturbing activities would take place only in the non-breeding seasons for birds and bats, or 2) for potentially disturbing actions that might commence during the breeding seasons, qualified wildlife biologists or specialists would be retained to examine the project site to ensure that no active nests or bat inhabitations are present

before work could proceed. To minimize any risk to Alameda whipsnake, a "threatened" species not known to occur on the LBNL Campus, but for which there is suitable habitat present, 2006 LRDP EIR Mitigation Measure BIO-5b--BIO-5f would require that: appropriate vegetation management would be undertaken at each work site; field workers would be trained in Alameda whipsnake identification and avoidance; a work monitor would conduct daily site surveys prior to work commencement; work hours, lighting, and off-road speed limits would be observed. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to air quality, and a Subsequent EIR is not required.

Cultural Resources: The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures CUL-3 and CUL-4. These measures would ensure work stoppage and notification should potential archaeological, historic artifacts, and/or human remains be encountered. In most cases, the Project would excavate only in previously disturbed, filled, and developed areas. Moreover, previous archaeological surveys support the finding that archaeological resources are unlikely to be encountered on the Berkeley Lab site. No buildings more than 50 years old or found to be eligible for inclusion in the National Register of Historic Places would be affected by the proposed Project. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. See discussion of Tribal Cultural Resources, below. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to cultural resources, and a Subsequent EIR is not required.

Energy: The project would follow UC LBNL sustainability best practices and will not result in the wasteful, inefficient, or unnecessary consumption of energy. Further, modernized and upgraded utility systems under the proposed Project would increase Campus-wide energy efficiency. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to energy, and a Subsequent EIR is not required.

Geology/Soils: The proposed Project would include shallow excavation and refilling to access trenches and utility corridors. In most cases, such locations are under roads or other paved surfaces and would be returned to that state. The Project would incorporate 2006 LRDP EIR Mitigation Measure GEO-3 to control erosion and to restore excavated sites. Soils would be handled in accordance with Berkeley Lab's California Department of Toxic Substances Control-approved Soils Management Plan (2017). None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to geology and soils, and a Subsequent EIR is not required.

Greenhouse Gas Emissions: The proposed Project would incorporate 2006 LRDP EIR (Supplemental) Mitigation Measures GHG-1 and GHG-2[1]. Project greenhouse gases would primarily be temporary construction emissions and not operational emissions, including Scope 1 emissions (on-site emissions from construction equipment exhaust) and Scope 3 emissions (associated with off-site solid waste transport and disposal and worker commuting). Project activities, which would occur incrementally and over a several-year period, are expected to be well below the Air District's 1,100 $MTCO_2e$/year CEQA significance standard[2]. The Project would further be subject to all applicable Berkeley Lab sustainability and construction best practices. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to greenhouse gas emissions, and a Subsequent EIR is not required.

Hazards and Hazardous Materials: Project activities would involve risks typically associated with construction activities. Such risks include the potential for worker tripping and falling; accidents or misuse of vehicles, cranes, heavy equipment, and tools; and potential releases of hazardous substances from demolition debris. Project equipment and soils may potentially contain small areas of induced radiological contamination and/or potential chemical contaminants such as lead-based paint, asbestos, mercury, polychlorinated biphenyl (PCB) contamination, and/or volatile organic compounds (VOCs). Accordingly, excavation and removal of contaminated soil could generate hazardous and/or hazardous mixed waste. Any hazardous wastes would be characterized and shipped to appropriate, licensed processing facilities and/or landfills in compliance with all applicable state and federal hazardous waste regulations and Department of Transportation regulations. Characterization and processing of such wastes would occur on the LBNL site in accordance with applicable state and federal requirements.

The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures HAZ-3a—HAZ-3f, which pertain to waste management and hazards oversight. Potential Project impacts due to hazards and/or hazardous materials would be managed by strict oversight of construction activities by LBNL Facilities and EH&S staff; adherence to all applicable laws, regulations, rules, and safety procedures, including permit acquisition and agency notifications; and careful characterization, handling, transportation, and off-site disposal of materials and debris that might be hazardous. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and

[1] As per 2006 LRDP EIR Supplement: Building 59 Upgrade & Installation and Operation of NERSC-9 Final EIR (Including Supplementation of the 2006 LRDP EIR with respect to Greenhouse Gas Emissions and Energy Impacts), SCH#2016062007, February 2017.

[2] While the 1,100 $MTCO_2e$ standard applies to stationary, operational sources, this standard is being used to benchmark the proposed Project because BAAQMD does not currently maintain a CEQA significance standard for construction activities.

mitigation related to hazards and hazardous materials, and a Subsequent EIR is not required.

Hydrology/Water Quality: Most of the specific project locations are paved or otherwise developed. All specific project locations are served by stormwater collection systems that drain into Strawberry Creek. A Stormwater Pollution Prevention Plan (SWPPP) would be implemented for the Project; this would either be through a minor modification to LBNL's Sitewide Industrial General Permit SWPPP or through a project-specific Construction General Permit SWPPP. There are no wetlands in the vicinity of the proposed project and the nearest surface water body is the North Fork of Strawberry Creek.

Project-excavated areas may accumulate stormwater that would either evaporate/infiltrate into the soil or need to be pumped and containerized, then treated and tested before being discharged into the sanitary sewer system in accordance with Berkeley Lab's East Bay Municipal Utility District Special Discharge Permit conditions. Construction, lay-down, and staging areas would be maintained in a clean and orderly manner, particularly as directed by a stormwater construction project permit and related Stormwater Pollution Prevention Plan. As appropriate, nearby storm drains would be lined with protective filtration products (e.g., "pigs") to inhibit the intrusion by any stray and unexpected oils and debris. Wastes would be appropriately managed to prevent spillage and/or stormwater intrusion. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to hydrology and water quality, and a Subsequent EIR is not required.

Land Use / Planning: As described above, the Project would be in conformance with the 2006 LRDP and 2006 LRDP EIR. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to land use and planning, and a Subsequent EIR is not required.

Mineral Resources: No mineral resources exist on the project site. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to mineral resources, and a Subsequent EIR is not required.

Noise: The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures Noise-1a and Noise-1b, as applicable, to address construction noise. The Project would result in negligible or no long-term operational noise. The Project would typically operate during business hours; at times, weekend work and limited swing-shift work may be conducted to minimize business disruptions and safety risks. There are very few potential sensitive receptors in the project area, and the project area is further buffered from off-site receptors by surrounding terrain, tree cover, and buildings. In such areas where construction noise might create disturbances to off-site receptors, a series of best

management practices the Lab exercises at its discretion would be utilized: work hours may be further restricted; increased noise metering and buffering may be used; work crews may be instructed to take proactive measures to decrease unnecessary noise generation; and stepped up outreach and complaint monitoring may be implemented to track and address potential disturbances. With implementation of 2006 LRDP EIR Mitigation Measures Noise-1a and Noise 1b, and with further use of best management practices, none of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to noise, and a Subsequent EIR is not required.

Population / Housing: The proposed Project would not alter long-term UC LBNL campus population. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to population and housing, and a Subsequent EIR is not required.

Public Services: The proposed Project would not alter long-term UC LBNL campus population. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to public services, and a Subsequent EIR is not required.

Recreation: The proposed Project would not alter long-term UC LBNL campus population. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to recreational facilities, and a Subsequent EIR is not required.

Transportation: Truck and automobile trips generated by the Project would be only short-term and construction related. Trips would be relatively few in number and would tend to avoid peak commute hours. The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures TRANS-1c and TRANS-8, as applicable, to address construction trip effects on nearby intersections. Construction truck trips would be managed under Berkeley Lab's Construction Truck Trip Management Program, which requires that all planned construction truck trips be aggregated and managed by a Construction Truck Trip Coordinator to ensure that cumulative truck trips are kept well below impact thresholds. Hauling distances to landfills or other waste processing centers would be minimized wherever practicable and such trips would be only temporary. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to transportation, and a Subsequent EIR is not required.

Tribal Cultural Resources: Through past archeological field surveys and archival research, the proposed Project site was determined as not likely inhabited by Native America

populations (much of the original site was situated on steep hills and canyons; many areas were scoured by storm water-fed streams). The Berkeley Lab campus has subsequently been subject to grading, filling, and intensive development in recent decades. The majority of project excavation would take place in utility beds that have already been excavated and refilled with local and imported soils. There is no reasonable possibility that Native American artifacts or remains could be directly disturbed by those Project activities. The proposed Project would incorporate 2006 LRDP EIR Mitigation Measures CUL-3 and CUL-4. These measures would ensure work stoppage and notification should potential archaeological, historic artifacts, and/or human remains be encountered. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to tribal cultural resources, and a Subsequent EIR is not required.

Utilities / Service Systems: The proposed Project would incorporate 2006 LRDP EIR Mitigation Measure UTILS-4, which would manage and otherwise seek to minimize Project-related waste. Seasonal waste water treatment might be required under an East Bay Municipal Utility District discharge permit if stormwater were to accumulate in excavated areas and require disposal via the sanitary sewer. Solid waste and possible hazardous waste disposal would be required; these are not expected to be excessive or beyond the capacity of local or regional providers. All applicable solid waste and storm water regulations would be complied with. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to utilities and service systems, and a Subsequent EIR is not required.

Wildfire: No new structures or long-term population increases would be introduced to Berkeley Lab by the proposed Project. None of the CEQA Guidelines Appendix G-identified impact thresholds would be exceeded by the proposed Project. The proposed Project is within the scope of the 2006 LRDP Final EIR, with respect to effects and mitigation related to wildfire, and a Subsequent EIR is not required.

Mandatory Findings of Significance: With inclusion of 2006 LRDP Final EIR, mitigation measures as mandatory project components, none of the CEQA Appendix G Mandatory Findings of Significance would be triggered.

As described under above analyses of biological and water quality resources and as provided in the 2006 LRDP Final EIR, the Project would not degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal. As described under the above analyses of cultural and tribal resources, the Project would not be expected to eliminate important examples of the major periods of California history or prehistory.

Given the incremental nature of the proposed Project and the relatively low construction intensity involved with replacing existing utility lines, the Project is not expected to pose cumulatively considerable effects when viewed in connection with the effects of past, present, and probable future projects. Such projects include at various times BioEPIC and Welcome Center Construction and the ALS-U (approved) and NERSC-10 (foreseeable) projects, the latter two of which would involve renovation and equipment replacement in existing buildings. Considering the relative isolation of the UC LBNL campus from surrounding communities, the geographic breadth, continued implementation of 2006 LRDP EIR mitigation measures, and with active management of truck trips through Berkeley Lab's Construction Truck Trip Management Program, potential cumulative effects would be kept minimal. This is consistent with the detailed analysis of cumulative impacts provided in the 2006 LRDP Final EIR.

No Project-related environmental impacts that would cause substantial adverse effects on human beings, either directly or indirectly, have been identified. No environmental impacts identified in the 2006 LRDP Final EIR, would be made substantially more severe by the proposed Project.

Figure 1: Berkeley Lab Site

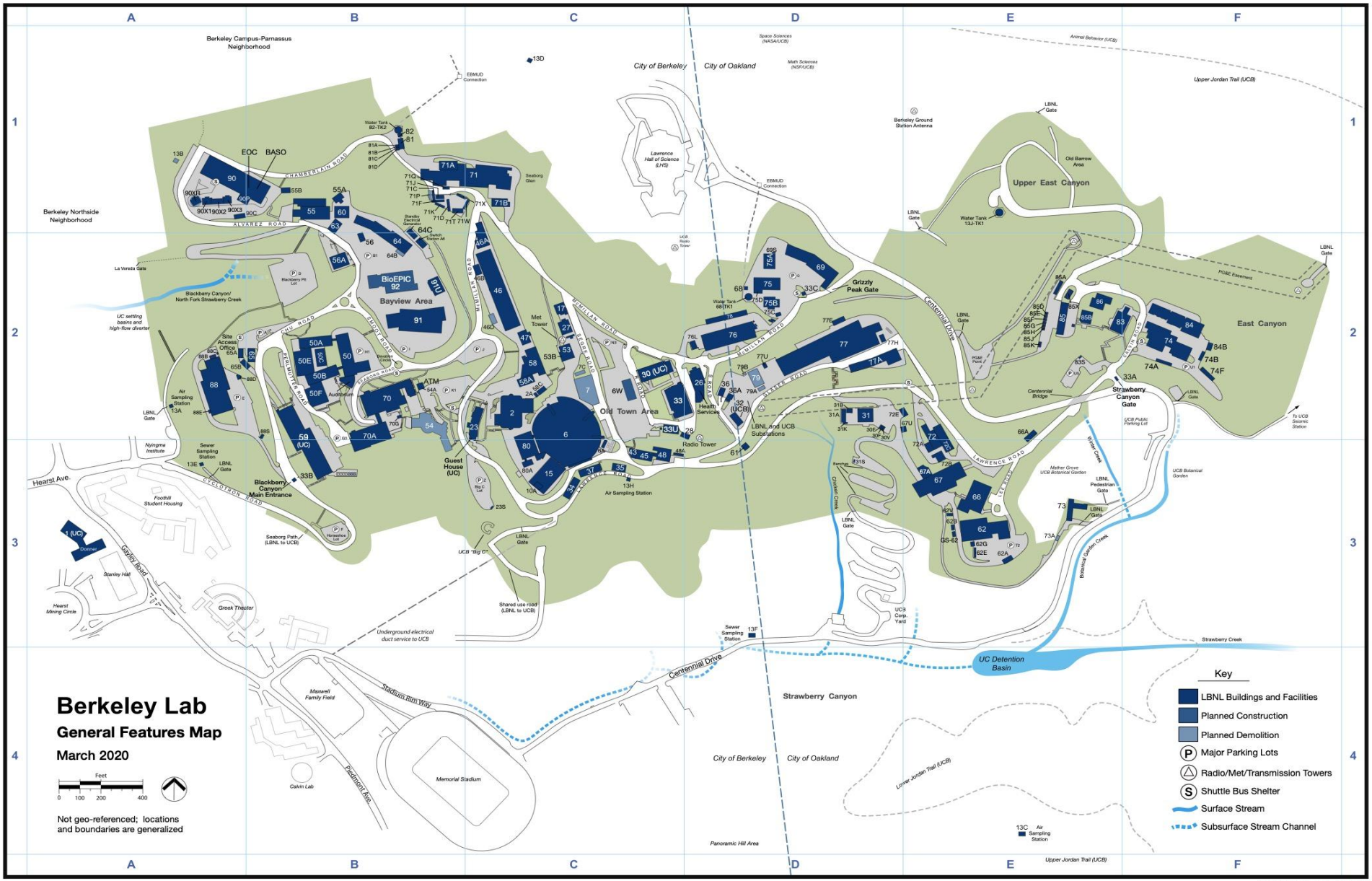

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Figure 2: Project Utility Corridors